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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,394	12/08/2003	James Edward Nering		4648

7590 06/30/2006  
JAMES E. NERING  
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EXAMINER

FLORES RUIZ, DELMA R

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/731,394	NERING, JAMES EDWARD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Delma R. Flores Ruiz	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 9-19 is/are rejected.
- 7) ☒ Claim(s) 3,6-8 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

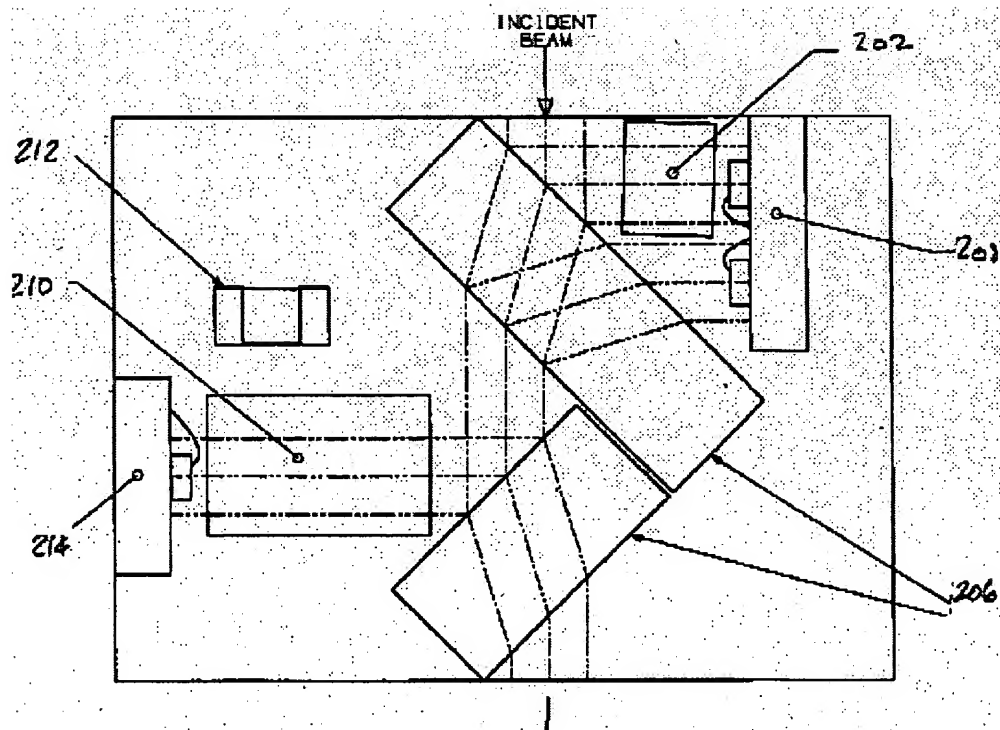
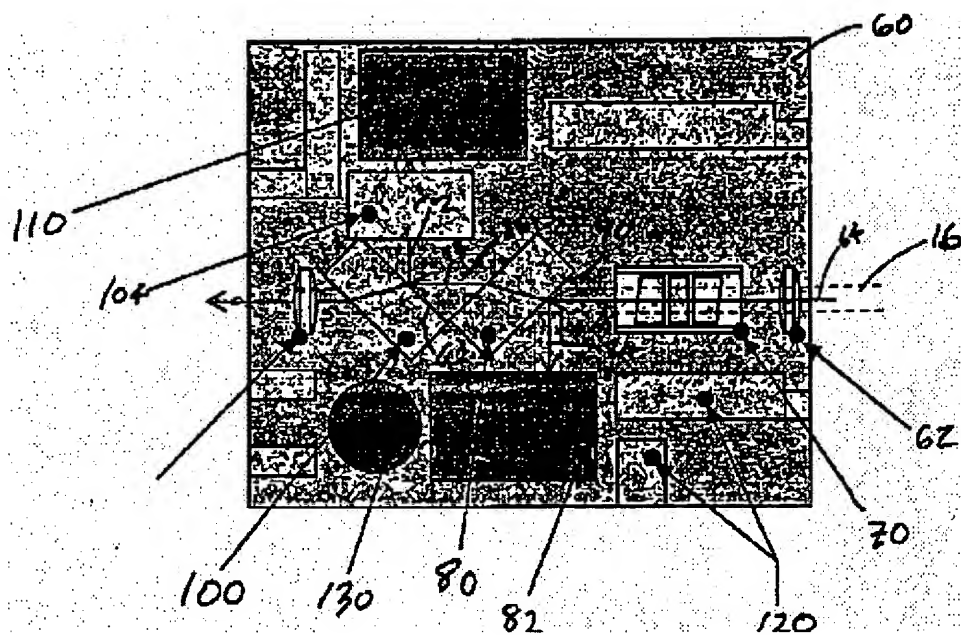
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5, 10 – 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Senapati et al. (2003/0072336 A1).

***Regarding claim 1***, in Figures 3 and 6 Senapati discloses wavelength locking package (see Fig. 3, Character 20 and Fig. 6 Character 200) comprising: a stacked dielectric filter (see Fig. 6 Character 202) having a repeating transmission profile that comprises a positive slope and a negative slope (Paragraph [0037]).

***Regarding claim 2*** in Figures 3 and 6 Senapati discloses repeating transmission profile is a substantially sinusoidal function (See Fig. 5).

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**Regarding claim 10** in Figures 1 Senapati discloses laser (see Fig. 1 Character 10).

**Regarding claim 11** in Figures 3 and 6 Senapati discloses a method of fabricating a wavelength locking package, comprising: providing a base (see Fig. 3, Character 60); locating a stacked dielectric filter (see Fig. 6 Character 202) on said base, said stacked dielectric filter having a repeating transmission profile that comprises a positive slope and a negative slope (Paragraph [0037]); and locating a photodetector (see Fig. 6, Character 208) on said base material such that said photodetector is optically coupled to said stacked dielectric filter (see Fig. 6, Character 202).

**Regarding claim 12** in Figures 1, 3 and 6 Senapati discloses a laser (see Fig. 1, Character 10) on said base (see Fig. 3 Character 6) such that a portion of said laser's output is optically coupled to said stacked dielectric filter (see Fig. 6, Character 202).

**Regarding claim 13** in Figures 3 and 6 Senapati discloses a collimating lens (see Fig. 3, Character 62) on said base (see Fig. 3, Character 60).

**Regarding claim 14** in Figures 3 and 6 Senapati discloses thermal controller (Paragraph [0040]) on said base (see Fig. 6, Character 60) wherein said thermal

controller is capable of receiving a sampling signal from said photodetector (see Fig. 6, Character 208).

**Regarding claim 15** in Figures 3 and 6 Senapati discloses a thermal unit on said base (see Fig. 6, Character 60) wherein said thermal unit is capable of receiving a control signal from said thermal controller and thereby heat or cool said package (Paragraph [0040]).

**Regarding claim 16** in Figures 3 and 6 Senapati discloses a thermistor (see Fig. 3 Character 130 and (see Fig. 6, Character 212) on said base wherein said thermistor is capable of sending a temperature reading to said thermal controller and said thermal controller is capable of using said temperature reading to thereby adjust said control signal (Paragraph [0040]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 9, 17 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Senapati et al. (2003/0072336 A1) in view of applicant's admitted prior art detailed in the specification.

**Regarding claims 4, 5 and 9**, Senapati discloses the claimed invention except for slope changes by at least about 0.5% transmittance per GHz, 0.3 picometers per. degree. C and repeating transmission profile has spectral bands that are separated by about 25, about 50, about 100, or about 150 GHz. However, it is well know in the art to apply the slope changes by at least about 0.5% transmittance per GHz, 0.3 picometers per. degree. C and repeating transmission profile has spectral bands that are separated by about 25, about 50, about 100, or about 150 GHz as discloses by Applicant in (Paragraph [0009]). Therefore, it would have been obvious to a person having ordinary skill in the art to apply the well know slope changes by at least about 0.5% transmittance per GHz, 0.3 picometers per. degree. C and repeating transmission profile has spectral bands that are separated by about 25, about 50, about 100, or about 150 GHz as suggested by Applicant to the wavelength locking of Senapati, because it will could be use to change the intensity of the signal and stabilized the laser output see (Paragraph [0002 and 0009]) of Applicant.

**Regarding claim 17 – 19** in Figures 3 and 6 Senapati discloses an optoelectronic communication system (see Fig. 3, Characters 82 and 110 and (see Fig. 6 Character 214) comprising: a laser capable of emitting coherent light at a plurality of

wavelengths; a wavelength locking (see Fig. 3, Character 20 and Fig. 6 Character 200) comprising: a stacked dielectric filter (see Fig. 6 Character 202) having a repeating transmission profile that comprises a positive slope and a negative slope (Paragraph [0037]), said stacked dielectric filter capable of providing a signal to cause said laser to emit said coherent light at one of said pluralities of wavelengths.

However, it is well known in the art to apply the optical modulator coupled to said laser, said optical modulator, optical multiplexer and fiber optic as disclosed by applicant in (Paragraph [0002]). Therefore, it would have been obvious to a person having ordinary skill in the art to apply the well known optical modulator coupled to said laser, said optical modulator, optical multiplexer and fiber optic as suggested by Applicant to the wavelength locking of Senapati, because it will could be used to increase telecommunication capacity optical systems see (Paragraph [0002]) of Applicant.

### ***Allowable Subject Matter***

Claims 3, 6 – 8 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.




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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Delma R. Flores Ruiz  
Examiner  
Art Unit 2828  
DRFR/MH  
June 21, 2006

  
Min Sun Harvey  
Supervisor Patent Examiner  
Art Unit 2828